

FORM PTO-1083  
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COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450



Docket No.: 600.1243  
Date: May 30, 2006

In re application of: **GRUETZMACHER, et al.**  
Serial No.: 10/655,928  
Filed: September 5, 2003  
For: **PRINT SUBSTRATE CONTACTING ELEMENT HAVING AN INK-REPELLENT COATING AND METHOD FOR COATING A PRINT SUBSTRATE-CONTACTING ELEMENT**

Sir:

Transmitted herewith is an **APPELLANT'S BRIEF UNDER 37 C.F.R. §41.37** in the above-identified application.

- [ ] Also transmitted herewith are:  
[ ] Petition for extension under 37 C.F.R. 1.136  
[ ] Other:
- [X] Check(s) in the amount of **\$500.00** is/are attached to cover:  
[ ] Filing fee for additional claims under 37 C.F.R. 1.16  
[ ] Petition fee for extension under 37 C.F.R. 1.136  
[X] Other: **APPEAL BRIEF FEE**
- [X] The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.
- [X] Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.
- [X] Any patent application processing fees under 37 C.F.R. 1.17.
- [X] Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.

  
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I hereby certify that the documents referred to as attached therein and/or fee are being deposited with the United States Postal Service as "first class mail" with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on May 30, 2006.  
DAVIDSON, DAVIDSON & KAPPEL, LLC

BY:

  
Jan Decker

AF  
37W



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re: Application of: GRUETZMACHER, et al.  
Serial No.: 10/655,928 Confirmation No.: 8625  
Filed: 09/05/2003  
For: PRINT SUBSTRATE CONTACTING ELEMENT  
HAVING AN INK-REPELLENT COATING AND  
METHOD FOR COATING A PRINT SUBSTRATE-  
CONTACTING ELEMENT  
  
Art Unit: 2854  
Examiner: Williams, Kevin D.  
Customer No.: 23280  
Atty. Docket: 600.1243

Mail Stop: APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 30, 2006

**APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37**

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated November 25, 2005 in this application. The statutory fee of \$500.00 is paid concurrently herewith.

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## 1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business in Heidelberg, Germany, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Heidelberger Druckmaschinen AG by assignment by inventors Gruetzmacher, Gutfleisch, Hauptmann, and Peiter. The assignment was recorded on December 22, 2003 at reel 014832, frame 0175.

## 2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

## 3. STATUS OF CLAIMS

Claims 1-9 are pending. Claims 10 to 17 have been canceled. Claims 1-9 have been finally rejected as per the Final Office Action dated November 25, 2005.

The rejection to claims 1-9 thus is appealed. A copy of appealed claims 1-9 is attached hereto as Appendix A.

## 4. STATUS OF AMENDMENTS AFTER FINAL

No amendments to claims were filed after the final rejection. A Notice of Appeal was filed on March 23, 2006 and received by the U.S.P.T.O. on March 27, 2006.

## 5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a print substrate-contacting element (e.g., 20 in Fig. 2, e.g., specification at paragraph [0036]) comprising: a microstructured carrier (e.g., 32 in Fig. 2, e.g., specification at paragraph [0036]) having a surface (e.g., specification at paragraph [0034]); and an ink-repellent coating (e.g., 30 in Fig. 2, e.g., specification at paragraph [0036]) on the surface (e.g., specification at paragraph [0034]) of the microstructured carrier (e.g., 32 in Fig. 2, e.g., specification at paragraph [0036]), the ink-repellent coating (e.g., 30 in Fig. 2, e.g., specification at paragraph [0036]) including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

## 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 4, and 7 to 9 should be rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz (US 5,479,856) in view of Mohr (US 4,427,766). Whether claims 2 and 3 should be rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz in view of Mohr as applied to claims 1, 4, and 7 to 9, and further in view of Tomita (US 2002/0062748). Whether claims 5 and 6 should be rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz in view of Mohr as applied to claims 1, 4, and 7 to 9, and further in view of Boardman (US 6,824,882).

## 7. ARGUMENTS

### Rejections under 35 U.S.C. §103(a)

#### Claims 1, 4 and 7 to 9

Claims 1, 4, and 7 to 9 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz (US 5,479,856) in view of Mohr (US 4,427,766).

Wirz discloses blanket cylinder/ plate cylinder pairs with impression cylinders 3, 4.

Mohr describes a printing plate and states that the form prepared according to Example 26 has similar properties to polyvinylphosphonic acid, but does not disclose the acid in Example 26 and refers to German Patent No. 1,134,093. A copy of the German patent and its US equivalent (U.S. Patent No. 3,276,868) are of record. The phosphonic acid layer referred to by the German patent is an intermediate layer (see claim 1 of U.S. Patent No. 3,276,868) and also only for a printing plate.

Claim 1 recites a print substrate-contacting element comprising:

a microstructured carrier having a surface; and

an ink-repellent coating on the surface of the microstructured carrier, the ink-repellent coating including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

Neither Wirz nor Mohr discloses “a microstructured carrier” as claimed. The Examiner in the final office action asserts that “every object is microstructured” and cites to the definition of microstructure. However, “microstructure” is not that same as the claim

term “microstructured”, which has a common technical meaning to describe materials which have defined structures on the micrometer scale. There are 259,000 Google entries when “microstructured” is searched, and numerous textbooks about “microstructured materials.” The University of California at Berkeley has a Microstructured Materials Lab. Thus, microstructured materials clearly do not encompass every object but are a defined subset of materials.

While there are several definitions of “microstructured”, the specification makes clear that a microstructured carrier is one with a defined structure at or below the micrometer range. See the present specification at page 5, lines 5 to 23. Non-microstructured materials are not defined at this level. Attached also is a description of a textbook about microstructured materials.

Neither Wirz nor Mohr show a “microstructured carrier” as claimed.

In addition, it is respectfully submitted that one of skill in the art would not have used printing plate teachings for the impression cylinder of Wirz, since the impression cylinder of Wirz does not provide any image.

Withdrawal of all of the rejections is respectfully requested.

#### Claims 2 and 3: Argued Separately

Claims 2 and 3 should be rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz in view of Mohr as applied to claims 1, 4, and 7 to 9, and further in view of Tomita (US 2002/0062748).

Claim 2 recites the print substrate-contacting element as recited in claim 1 wherein the carrier is metallic and has a natively oxidized surface, and claim 3 that the printing substrate-contacting element as recited in claim 1 wherein the carrier has at least one substance selected from the group consisting of titanium, zirconium, molybdenum, nickel, copper, aluminum, chromium, iron, silver and gold.

Tomita shows printing press with an impression cylinder plate having a fluorine polymer layer.

It is respectfully submitted that since the plate is for an impression cylinder and also contains a non-structured polymer layer overtop, one of skill in the art would not have combined its teachings with the Wirz/Mohr combination.

Withdrawal of the rejections to claims 2 and 3 for this reason as well is respectfully requested.

Claim 5: Argued Separately

Claims 5 and 6 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wirz in view of Mohr as applied to claims 1, 4, and 7 to 9, and further in view of Boardman (US 6,824,882).

Boardman teaches fluorinated phosphonic acids.

Claim 5 recites the print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is substituted in a nonpolar region so as to be both ink-repellent and water-repellent.

There is absolutely no teaching in Boardman to make the acid ink-repellant.

Withdrawal of the rejections to claim 5 for this reason as well thus is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance.  
Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,  
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**APPENDIX A:**

**PENDING CLAIMS 1-9 OF  
U.S. APPLICATION SERIAL NO. 10/655,928**

Claim 1 (original): A print substrate-contacting element comprising:

a microstructured carrier having a surface; and

an ink-repellent coating on the surface of the microstructured carrier, the ink-repellent coating including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

Claim 2 (original): The print substrate-contacting element as recited in claim 1 wherein the carrier is metallic and has a natively oxidized surface.

Claim 3 (original): The print substrate-contacting element as recited in claim 1 wherein the carrier has at least one substance selected from the group consisting of titanium, zirconium, molybdenum, nickel, copper, aluminum, chromium, iron, silver and gold.

Claim 4 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of an amphiphilic organic compound is a hydroxamic acid derivative or a phosphonic acid derivative.

Claim 5 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is substituted in a nonpolar region so as to be both ink-repellent and water-repellent.

Claim 6 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is fluorinated in a nonpolar region.

Claim 7 (original): The print substrate-contacting element as recited in claim 1



wherein the print substrate-contacting element is a back-pressure cylinder or a part of a surface thereof.

Claim 8 (original): A print substrate-processing machine comprising at least one print substrate-contacting element as recited in claim 1.

Claim 9 (original): The print substrate processing machine as recited in claim 8 wherein the machine is a printing press.

**APPENDIX B**

Evidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

## **APPENDIX C**

Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in “2. RELATED APPEALS AND INTERFERENCES” of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.